

Length of bones of middle toe from os cuneiform to extremity									
of the toe...	...	...	...	...	...	...	...	$7\frac{3}{4}$	6
Do., do., left...	...	...	...	...	...	...	...	$7\frac{1}{2}$	—
Length of great toe from do., right side									
Do., do., left side...	...	...	...	...	...	...	...	$4\frac{5}{8}$	$4\frac{1}{8}$
Do., do., left side...	...	...	...	...	...	...	...	—	4

## THE HAND.

Length of the hand, from the carpal bones to the extremity of									
the middle finger	...	...	...	...	...	...	...	9	$7\frac{1}{2}$
Length of thumb	...	...	...	...	...	...	...	4	3

---

ART. IV.—*On the Discovery of Cretaceous Fossils in Australia.* By FREDERICK M'COY, Professor of Natural Science in the University of Melbourne, Government Palæontologist, and Director of the National Museum of Victoria, &c.

## [Abstract.]

The author stated that he had recently received a small collection of geological specimens, obtained by Mr. Sutherland and Mr. David Carson, of Collins-street, Melbourne, on the surface of a run on the western bank of the Flinders river, at the base of Walker's Table Mountains, in lat.  $21^{\circ} 13'$ , long.  $143^{\circ}$ , and presented by those gentlemen to the collection of the National Museum. The matrix is an olive calcareo-argillaceous marl.

The specimens included, besides the vertebræ of a very large teleosteous fish, which it was not possible to determine without further parts, two distinct species of the well-known cretaceous genus *Inoceramus*, with very thick coarse fibrous shells, *Ammonites*, and a few other remains, which, taken together, enabled Professor M'Coy to announce for the first time with certainty the existence of the Cretaceous formations in Australia. Mr. Gregory doubtfully indicated cretaceous fossils in lat.  $30^{\circ} 15'$ , in his last paper to the Geological Society, but without any generic or specific recognition of fossils of that age. His materials were, unfortunately, sent home, instead of being kept for comparison in the local collections in this country, and they have not been described or definitely identified

with any cretaceous forms, by the officers of the Geological Society, in whose list they are quoted, not as cretaceous but only as mesozoic. Mr. Selwyn also alluded formerly to a specimen of an Echinide in flint, given to him as found in gravel in sinking a well at Prahran, near Melbourne, having been identified by Professor M'Coy as the European Cretaceous *Conulus albogalerus*. The author had also a flint *Ananchytes ovatus*, of the same age, given to him as found at Richmond, near Melbourne also; but he considered both these specimens were unsatisfactory, as far as the proof of their having really belonged to any Australian stratum. The present collection of fossils, though small, indicated the existence of the Lower Chalk, as developed in England and Germany, and this discovery nearly fills up the great series of marine mesozoic formations supposed to be absent in Australia when Professor M'Coy left Europe, but most of which he had recognised from fossil evidence since his arrival in Victoria, and made known at a former meeting of this Society.

The following are the three most interesting of the new species of mollusca :—

*Inoceramus Carsoni* (M'Coy).

This is the most common of the bivalves. It has a coarsely fibrous shell, nearly a quarter of an inch thick, agreeing in size and shape almost exactly with the English *Inoceramus mytiloides* (Sow.) of the English chalk, from which it differs in having the hinge-line rather longer, the anterior end more pointed, and the superior posterior angle rather more obtuse. This species Professor M'Coy named in honour of the enthusiastic young geologist who brought it down.

*Inoceramus Sutherlandi* (M'Coy.)

This is the second most common fossil, and is a much larger and broader species than the *I. Carsoni* (M'Coy). The author had much pleasure in naming it after the other donor of the specimens, which were so painfully carried, from the remote point indicated, to the settled districts, on their saddles. This second species, in form, size, and concentric undulations of the surface, nearly agrees with the French and English common cretaceous *I. Cuvieri*, but is less curved at the ventral margin near the beak, and rather narrower and more acute at the anterior end.

*Ammonites Flindersi* (M'Coy).

Discoid moderately compressed; periphery narrow, obtusely rounded; whorls  $4\frac{1}{2}$ , about one-fourth of the width of each exposed in an obtusely angular-edged, flat-sided umbilicus; surface crossed by obtuse sigmoid striae, some of which are more prominent than the more numerous intervening ones; diameter, six inches; proportional thickness, 29-100th; width of last whorl, 49-100th; seven much divided lobes in the septa of each side, two of which are within the edge of the umbilicus.

This ammonite, in size, number, and involution of whorls, shape, markings, and septa, is so nearly identical with the very common *A. Beudanti* (Br.), of the French Lower Chalk, that, but for being slightly less compressed, and a slight difference in some of the septal lobes, it could scarcely be separated even as a variety. The specific name is given to call attention to the locality.

ART. V.—*On the Desirability of Establishing the Geographical and Ethnographical Section under Law 60.* By THOMAS E. RAWLINSON, ESQ., C.E.

[Read 4th September, 1865.]

Situate in a young community, which (in this quarter of the globe) occupies the position of advance guard, in the civilization of the nineteenth century, it appears to me to be almost unnecessary to advance any particular argument, to convince the members of this Society, of the great importance of collecting the ethno and geographical facts within their reach, for the purpose of rendering permanent, a knowledge of things which are passing away, and of giving wider and more rapid publicity to discoveries, which are now being, and have been made, relative to the character, form, and capabilities of our adopted country and its aboriginal races.

Assuming that the general principle (of the desirability of securing the above objects) is admitted, I will proceed to advert to the objects themselves, and why this Society especially should concern itself in the matter.

At the present time, our geographical knowledge of the interior and around the coasts of Australia is gradually widening, but it is neither so full, or authentic, in all cases,